

WHAT IS CLAIMED IS:

1. A system for improving performance in an HDR (High Data Rate) wireless terminal using diversity techniques, comprising:

a first receiver for signal transmission and reception including a first antenna, a first reception path through a duplexer, a first transmission path through said duplexer, a second transmission path bypassing said duplexer, and a transmission switch for switching between said first and second transmission paths; and

a second receiver for receiving high-rate data including a second antenna and a second reception path.

2. A system for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 1, wherein the first transmission path comprises:

a multiplier for spreading a transmission signal;

an RF BPF (Radio Frequency Band Pass Filter);

a driver;

a BPF; and

a power amplifier for amplifying the transmission signal, connected in series and transmitting the transmission signal from the first antenna through the duplexer.

3. A system for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 1, wherein the second transmission path comprises:

a multiplier for spreading a transmission signal;

an RF BPF;

a driver;

a BPF; and

a power amplifier, connected in series and transmitting the transmission signal from the first antenna.

4. A system for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 1, wherein the first reception path comprises:

a low noise amplifier for amplifying a received signal;

a BPF;

a multiplier; and

an RF BPF, connected in series, and receiving the received signal from the first antenna through the duplexer.

5. A system for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 1, wherein the first reception path comprises:

a low noise amplifier for amplifying a received signal;

a BPF;

a multiplier; and

an RF BPF, connected in series, and receiving the received signal from the first antenna.

6. A system for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 1, further comprising a microprocessor for controlling the transmission switch.

7. A system for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 1, further comprising a microprocessor for determining whether an HDR transmission is occurring.

8. A system for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 1, wherein the first and second antennas are helical antennas.

9. A system for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 1, wherein the first antenna is a helical antenna combined with a whip antenna.

10. A method for improving performance in an HDR (High Data Rate) wireless terminal using diversity techniques, including a first receiver for signal transmission and reception including a first antenna, a first reception path through a duplexer, a first transmission path through said duplexer, a second transmission path bypassing said duplexer, and a transmission switch for switching between said first and second transmission paths, and a second receiver for receiving high-rate data including a second antenna and a second reception path, the method comprising:

determining whether an HDR transmission is occurring;

positioning the transmission switch to utilize the first transmission path in the first receiver, and receiving signals by commonly utilizing the first and second reception paths when it is determined that an HDR transmission is occurring; and

positioning the transmission switch to utilize the second transmission path bypassing the duplexer in the first receiver, and receiving signals by utilizing only the second reception path in the second receiver when it is determined that an HDR transmission is not occurring.

11. A method for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 10, wherein a microprocessor determines whether an HDR transmission is occurring.

12. A method for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 10, wherein a microprocessor controls the positioning of the transmission switch.

13. A method for improving performance in an HDR (High Data Rate) wireless terminal using diversity techniques, including a first receiver for signal transmission and reception including a first antenna, a first reception path through a duplexer, a first transmission path through said duplexer, a second transmission path bypassing said duplexer, and a transmission switch for switching between said first and second transmission paths, and a second receiver for receiving high-rate data including a second antenna and a second reception path, the method comprising:

determining whether an HDR reception is occurring;

positioning the transmission switch to utilize the first transmission path in the first receiver, and receiving signals by commonly utilizing the first and second reception paths when it is determined that an HDR reception is occurring; and

positioning the transmission switch to utilize the second transmission path bypassing the duplexer in the first receiver, and receiving signals by utilizing only the second reception path in the second receiver when it is determined that an HDR reception is not occurring.

14. A method for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 13, wherein a microprocessor determines whether an HDR reception is occurring.

15. A method for improving performance in an HDR (High Data Rate) wireless terminal as described in Claim 13, wherein a microprocessor controls the positioning of the transmission switch.